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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,569	08/16/2001	Brett A. Stahl	STA 0300 PUS	4246

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EXAMINER	
TSOY, ELENA	

ART UNIT	PAPER NUMBER
1762	

DATE MAILED: 10/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/931,569	STAHL, BRETT A.	
	Examiner	Art Unit	
	Elena Tsoy	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 September 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) *14 and 16-19* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13,15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

Response to Amendment

1. Amendment filed on September 2, 2003 has been entered. Claims 1-19 are pending in the application. Claims 14, 16-19 are withdrawn from consideration as directed to a non-elected invention.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Rejection to claims 10, 12, 15 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention has been withdrawn.

Double Patenting

4. Claim 8 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 7. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 1-5, 7, 8, 10-12, 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Stahl (US 5,667,614) in view of of CA 739923 and Hubbard et al (US 4,466,994).

As to claims 2, 4, 5, Stahl discloses a method of making graphics for heat sealing application to fabrics (See Abstract) comprising applying a pigment layer 14 preferably as an ink in the form of dispersion, emulsion or solution (See column 3, lines 41-44) to a release sheet 12 (See column 3, lines 24-32) and an adhesive layer 16 on the ink layer 14 (See column 3, lines 32-33), then kiss-cutting guided by a computer through the adhesive and ink to the release sheet to form the graphic (See column 2, lines 49-57). The ink layer may be "hot split" or pooled away after a web has cooled (See column 3, lines 3-15). "Hot split" ink layer is usually applied by screen print process (See column 1, lines 59-67; column 2, lines 1-2). The ink layer can be made from a solution of PVC resin in a plasticizer with added pigment dispersion (See column 3, lines 43-49). It is well known in the art that a solution of PVC resin in a plasticizer with added pigment dispersion (i.e. either in a water or solvent) is in fact plastisol. In other words, the ink of Stahl is a water or solvent based plastisol.

Stahl fails to teach that: the adhesive layer 16 is applied to the ink layer 14 while the ink 14 is still wet (Claim 1), the ink is applied to the release sheet as a plurality of patches (Claim 1) such as discrete congruent patches (Claim 3); a paper release sheet is made of paper with a release coating on one surface thereof (Claims 7, 8); the ink is applied by successively screen-printing all of the discrete ink patches on the release sheet (Claim 11); the ink is applied by simultaneously screen-printing all of the discrete ink patches on the release sheet (Claim 12); the kiss-cutting is performed successively on the patches on each release sheet (Claim 10); the cutting through the

release sheet is so arranged with respect to the patches that the distances between the margins of the sub-sheets and the patches is equal (Claim 15).

As to claim 1, CA 739923 teaches that a thermoplastic sheet and another thermoplastic sheet can be united via an ink layer while the ink layer is still wet (in a liquid state) (See Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used an ink layer while the ink is still wet (in a liquid state) between an adhesive layer and a release sheet in a method of Stahl with the expectation of providing the desired united laminate of adhesive layer/ink layer/release sheet, since abstract of CA 739923 teaches that a thermoplastic sheet and another thermoplastic sheet can be united via an ink layer while it is still wet (in a liquid state).

As to claims 7, 8, Hubbard et al teach that paper coated with a release coating on one surface thereof may be used as a paper release sheet for heat transfer (See Fig. 1; column 6, lines 14-45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used paper coated with a release coating on at least one surface as a release paper sheet in a method of Stahl with the expectation of providing the desired heat transfer, as taught by Hubbard et al.

As to claims 1, 3, 10-12, 15, Hubbard et al teach that heat transferable labels can be formed in a continuous process by screen-printing an ink in a form of e.g. letters spaced in predetermined relation to each other, onto a continuous web of a release paper sheet, which is coated on one side with a release coating in patches (See column 3, lines 41-48), simultaneously as a set of discrete

congruent patches thereby successively screen-printing the continuous web of the paper release sheet (See Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified a method of Stahl for making heat-transferable graphics by screen-printing an ink onto a continuous web of a release paper sheet, which is coated on one side with a release coating in patches, simultaneously as a set of discrete congruent patches thereby successively screen-printing the continuous web of the paper release sheet; kiss-cutting successively on each release patch, and cutting through the release paper sheet between the margins of the sub-sheets with the expectation of providing the desired benefits of a continuous process, as taught by Hubbard et al.

7. **Claims 6, 9, 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Stahl (US 5,667,614) in view of CA 739923 and Hubbard et al (US 4,466,994), and further in view of Lion (US 6,224,707) and Sorkoram (US 4,851,061).

Stahl in view of CA 739923 and Hubbard et al, as applied above, fails to teach that: kiss-cutting is performed using a laser cutter wherein the power supplied to the cutter is sufficient to singe the ink along the cut line only adjacent the adhesive to render the line readily visible for weeding.

Lion further teaches that computer guided cutting is functionally equivalent to laser-cutting for cutting selected designs (See column 5, lines 12-18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a laser-cutter for kiss-cutting in a method of Stahl in view of Abstract of CA 739923 since Lion further teaches that computer guided cutting is functionally equivalent to laser-

cutting for cutting selected designs, and the selection of any of these known means for cutting selected designs in Stahl in view of CA 739923 and Hubbard et al would be within the level of ordinary skill in the art.

Sorkoram teaches that due to the high levels of thermal energy present in the laser cutting process, and the sensitivity of most thermoplastics to high levels of heat, burning, scorching and deformation of the cut edge, as well as the surfaces of the thermoplastic material, are common side effects of the laser cutting process so that variety of techniques should be used to *diminish* the side effect (See column 1, lines 17-38).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have adjusted the laser power together with a variety of techniques in a method of Stahl in view of CA 739923, further in view of Lion with the expectation of providing minimum of side effects including scorched edges, as taught by Sorkoram, so that scorched edges would not show on face side of a heat-transferable graphic.

8. The prior art made of record and not relied upon is considered pertinent to applicant disclosure.

Takeuchi et al (US 4,510,201) that a solution of PVC resin in a plasticizer with added pigment dispersion (i.e. either in a water or solvent) is plastisol (See column 1, lines 15-20).

Response to Arguments

9. Applicants' arguments filed September 2, 2003 have been fully considered but they are not persuasive.

Applicants argue that CA 739923 is nonanalogous art because it relates to a method of printing ink to a surface of one thermoplastic sheet and uniting a printed surface while the ink is still wet with the printable surface of another thermoplastic sheet whereas Stahl relates to uniting a thermoplastic adhesive, an ink layer and a release layer of transparent polyester.

The Examiner respectfully disagrees with this argument. It has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, CA 739923 is reasonably pertinent to the particular problem with which the applicant was concerned because both references are directed to uniting a thermoplastic layer and another sheet via an ink layer. Since CA 739923 teaches that an ink layer in a wet state (a liquid state) may be used for uniting a thermoplastic layer and another sheet via the ink layer, one of ordinary skill in the art at would have a reasonable expectation of success in using an ink layer while the ink is still wet (in a liquid state) between an adhesive layer and a release sheet in a method of Stahl with the expectation of providing the desired united laminate of adhesive layer/ink layer/release sheet, since abstract of CA 739923 teaches that a thermoplastic sheet and another thermoplastic sheet can be united via an ink layer while it is still wet (in a liquid state).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (703) 605-1171. The examiner can normally be reached on Mo-Thur. 9:00-7:30, Mo-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for all communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

ET

Elena Tsoy
Examiner
Art Unit 1762

MICHAEL BARR
PRIMARY EXAMINER

September 29, 2003